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## CLAY COUNTY

### (Clay County Water Service Area Map)

- Estimated 1999 population of 22,400--65% on public water
- Estimated 2020 population of 23,100--87% on public water
- 265 miles of water lines, with plans for 350 additional miles
- Estimated funding needs for public water 2000-2005--\$35,645,000
- Estimated funding needs for public water 2006-2020--\$13,941,000

Clay County had an estimated population of 22,399 (8,302 households) in 1999 with a projected population of 23,052 (9,188 households) in 2020. Public water is provided to about 65 percent of the county's residents. In areas of the county not served by public water, about 93 percent of the households rely on private domestic wells and 7 percent of the households rely on other sources. About 2,030 customers will be added to public water service through new line extensions in 2000-2020.

#### *Estimated Costs - Proposed Projects, 2000-2005*

COUNTY/System		New Customers		Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	Cost in \$1000	In \$1000	in \$1000	in \$1000	in \$1000	in \$1000
<b>CLAY</b>								-
Manchester	192	1,032	10,000		20,000		2,300	32,300
Dewitt	16	200	1,345					1,345
East Laurel W/D	23	121	1,500				500	2,000
<b>Total</b>	<b>231</b>	<b>1,353</b>	<b>12,845</b>		<b>20,000</b>		<b>2,800</b>	<b>35,645</b>

#### *Estimated Costs - Proposed Projects, 2006-2020*

COUNTY/System		New Customers		Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	Cost in \$1000	in \$1000	in \$1000	in \$1000	in \$1000	in \$1000
<b>CLAY</b>								-
N. Manchester Water Ass.	80	451	5,441				1,450	6,891
Manchester Water Works	34.7	200	1,850		2,000	2,000	900	6,750
Hyden/Leslie W/D	6	29	300					300
<b>Total</b>	<b>120.7</b>	<b>680</b>	<b>7,591</b>		<b>2,000</b>	<b>2,000</b>	<b>2,350</b>	<b>13,941</b>

### PUBLIC WATER SYSTEMS

Clay County is served by 7 public or semi-public water systems: 6 community systems--1 municipal, Manchester Water Works; 2 water districts, Hima-Sibert Water District and East Laurel Water District; 1 water association, North Manchester Water Association; 2 private systems-- and 1 non-community system.

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# WATER SERVICE AREAS

## CLAY COUNTY

### Kentucky

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#### WATER SERVICE STATUS BY OWNER

EXISTING SERVICE AREA	PROPOSED SERVICE AREA	
		REDBIRD MISSION/QUEENDALE
		NORTH MANCHESTER WATER ASSOCIATION
		MANCHESTER WATER WORKS
		JACKSON COUNTY WATER ASSOCIATION
		HIMA-SIBERT WATER DISTRICT
		EAST LAUREL WATER DISTRICT



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Clay County officials have discussed the idea of combining all of the water systems into one water district; the Clay County Water District. If this district can not be achieved, they at least want to incorporate the Hima-Sibert Water District into Manchester Water Works. The local officials are working very closely with Jackson County to see that a lake and a regional treatment plant is built in the Sturgeon Creek area. They are very willing to buy treated water from Jackson County. Clay County officials want everyone in their county to be served and do not care where the water comes from. Dewitt Water District out of Knox County is planning to provide service in the Jeff's Creek area of Clay County. Leslie County is also going to serve an area of Clay County in the Redbird area. There is a slight possibility that Bell County will come into Clay and serve part of the Redbird area.

**MANCHESTER WATER WORKS**

PWSID: ..... 0260737  
System Type:..... COMMUNITY  
Owner Type: ..... MUNICIPAL  
Surface Source: ..... GOOSE CREEK RIVER  
Purchase Source:  
Well Source:  
Sells Water to: ..... HIMA SIBERT WATER DISTRICT  
Treatment Plant Capacity (MGD):..... 2.30  
Percent Daily Average Production:..... 84.00  
Total Tank Storage Capacity (gallons): ..... 2,200,000.00  
Total Service Connections: ..... 2,800.00  
Number of Employees:..... 20.00  
Treatment Operator Class: ..... 2D  
Distribution Operator Class:..... 3A  
Customer Rate for 1,000 Gallons:..... 3.50  
O/M costs 1997: ..... Not available  
O/M costs per Service Connection: ..... Not available  
Net Revenue 1997: ..... Not available  
Total Water Produced 1997 (gallons): ..... Not available  
Water Sold 1997 (gallons): ..... Not available  
Unaccounted-for Water 1997 (%): ..... Not available

Manchester Water Works currently withdraws water from the Bert T. Combs Lake, Goose Creek, and a seasonal well. According to the Clay county Water Supply Plan, this supply is not adequate source. Another temporary intake (2.5 MGD) is going to be added to Goose Creek until a new source is found. Manchester Water Works is currently looking at Laurel Lake (estimated cost of \$25+ Million), Buckhorn Lake (estimated cost of \$16+ Million) and the proposed Sturgeon Creek reservoir in Jackson County (no cost estimate available). This

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system currently sells to 3,600 total customers in Clay County, as well as North Manchester Water Association and Hima Sibert Water District. The water treatment plant for this system has a capacity of 2.3 MGD, and produces 1.5 MGD (65% of capacity). Manchester Water Works as a total storage capacity of 2.2 million gallons (six water tanks and one clear well at the plant). The rate for Manchester Water Works inside the city limits is \$5.00 for two thousand gallons and \$9.00 for two thousand gallons outside the city limits.

**NORTH MANCHESTER WATER ASSOCIATION**

PWSID: ..... 0260266  
System Type: ..... COMMUNITY  
Owner Type: ..... WATER ASSOCIATION  
Surface Source:  
Purchase Source: ..... MANCHESTER WATER WORKS  
Well Source:  
Sells Water to:  
Treatment Plant Capacity (MGD): ..... 0.00  
Percent Daily Average Production: ..... 0.00  
Total Tank Storage Capacity (gallons): ..... 788,000.00  
Total Service Connections: ..... 1,483.00  
Number of Employees: ..... 3.00  
Treatment Operator Class: ..... 2D  
Distribution Operator Class:  
Customer Rate for 1,000 Gallons: ..... 5.14  
O/M costs 1997: ..... 330,422.43  
O/M costs per Service Connection: ..... 226.01  
Net Revenue 1997: ..... 19,025.75  
Total Water Produced 1997 (gallons): ..... 0.00  
Water Sold 1997 (gallons): ..... 102,731,000.00  
Unaccounted-for Water 1997 (%): ..... 7.82

North Manchester Water Association currently buys water from Manchester Water Works. North Manchester Water Association sells water to 1,464 residential customers, eight commercial customers and eleven industrial customers. This system has three water tanks totaling 788,000 gallons.

**HIMA SIBERT WATER DISTRICT**

PWSID: ..... 0260197  
System Type: ..... COMMUNITY  
Owner Type: ..... WATER DISTRICT  
Surface Source:  
Purchase Source: ..... MANCHESTER WATER WORKS  
Well Source:  
Sells Water to:  
Treatment Plant Capacity (MGD): ..... 0.00  
Percent Daily Average Production: ..... 0.00

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Total Tank Storage Capacity (gallons): .....	100,000.00
Total Service Connections: .....	522.00
Number of Employees:.....	2.00
Treatment Operator Class: .....	2D
Distribution Operator Class:	
Customer Rate for 1,000 Gallons:.....	5.73
O/M costs 1997:.....	129,690.00
O/M costs per Service Connection: .....	248.45
Net Revenue 1997: .....	13,089.00
Total Water Produced 1997 (gallons):.....	0.00
Water Sold 1997 (gallons):.....	31,634,000.00
Unaccounted-for Water 1997 (%): .....	16.60

Hima Sibert currently buys water from both Manchester Water Works and Wood Creek Water District. There are 498 residential customers and 24 commercial customers in the Hima Sibert water District.

#### **EAST LAUREL WATER DISTRICT**

East Laurel Water buys water from Wood Creek Water District and services the Foggertown area of Clay County. The local county officials would like to see East Laurel expand to serve a bigger population in Clay County.

#### **OTHER SYSTEMS**

##### **QUEENDALE COMMUNITY**

PWSID: .....	0260492
System Type:.....	COMMUNITY
Owner Type: .....	PRIVATE
Surface Source:	
Purchase Source:	
Well Source:	
Sells Water to:	
Treatment Plant Capacity (MGD):.....	0.02
Percent Daily Average Production:.....	49.00
Total Tank Storage Capacity (gallons): .....	10,000.00
Total Service Connections: .....	22.00
Number of Employees:.....	1.00
Treatment Operator Class:	
Distribution Operator Class:.....	1BD
Customer Rate for 1,000 Gallons:.....	Not available
O/M costs 1997: .....	Not available
O/M costs per Service Connection: .....	Not available
Net Revenue 1997: .....	Not available
Total Water Produced 1997 (gallons):.....	Not available
Water Sold 1997 (gallons):.....	Not available
Unaccounted-for Water 1997 (%): .....	Not available

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Queendale Community is located in Clay County. The system serves a population of 75 and has 22 service connections.

**RED BIRD MOUNTAIN MEDICAL CENTER**

Red Bird Mountain Medical Center is located in Clay County. The system serves a population of 75 and has 19 service connections. The private, community system has treatment capacity of 24,000 gallons per day and storage capacity of 25,000 gallons. The water source is wells.

**RED BIRD SCHOOL**

Red Bird School is located in Clay County. The system serves a population of 425 and has 1 service connection. The local, non-transient, non-community system has treatment capacity of 4,000 gallons per day and the water source is wells

**PRIVATE DOMESTIC SYSTEMS**

About 7,850 people in Clay County rely on private domestic water supplies: 7,300 on wells, and 550 on other sources.

Most wells drilled in valley bottoms are adequate for a domestic supply. Fewer than half the wells drilled on hillsides are adequate for a domestic supply and wells on hilltops and ridges yield smaller quantities of water. In the western half of the county wells penetrating 500 feet or more of sandstone may yield enough water for small municipal or industrial supply.

Water obtained from most wells in this area is soft or moderately hard and contains noticeable amounts of iron. Salty water may be found in wells drilled less than 100 feet below the level of the principal valley bottoms.

A few springs supply sufficient quantities of water for domestic use, usually produces less than 5 gpm.

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